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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------|
| 10/796,961 | 03/11/2004 | Koji Hirota | 250349US-3S CONT | 4004 |
| 22850 7590 01/17/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER DEHGHAN, QUEENIE S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1731 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 01/17/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-----------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/796,961 | HIROTA ET AL. | |
| | Examiner | Art Unit | |
| | Queenie Dehghan | 1731 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 5-6, 11-12, and 15 rejected under 35 U.S.C. 102(b) as being anticipated by Hirotsu et al. (5,071,461). Hirotsu et al. disclose a manufacturing apparatus comprising a glass sheet holding portion, a heating mechanism for softening glass sheets, and a clamping mechanism comprising of pressure dies (molds) that faces each other and are movable from an open position to a clamping position pressing the overlapped glass sheets, wherein the clamping mechanism is capable of pressing to desired thickness, such as the thickness of one glass sheet (col. 9 lines 33-43, line 67 to col. 10 line 3, col. 11 lines 51-54, figure 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3, 8, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (English Translation of JP 2000-211630) in view of Kato et al. (English translation of JP Abstract 60-210550). Ando discloses a method for forming a glass frame or sidewall comprising heating the end portions of glass plates to soften them, overlapping the end portions in a thickness direction of each glass sheet, and joining the glass plates at the end portions and forming lap portions to the thickness of one belt shaped glass sheet, while being held in a vertical plane, with the inside corner portions vertically upward ([0059], [0060], drawing 7). However, Ando does not mention pressing the ends portions together. Kato et al. teach joining glass sheets together, such that the ends are superposed on each other to form corner portions and pressing the lap portions together (abstract, figure A). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the pressing step of Kato et al. in the method of Ando in order to secure the glass sheets together.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (English Translation of JP 2000-211630) in view of Kato et al. (English translation of JP Abstract 60-210550), as applied to claims 1 and 8, in view of Stroud (2,049,528). Ando and Kato et al. fail to disclosed glass sheets with end corners partially notched. Stroud teaches glass sheets that are superposed on each other with end corners of the belt sheets partially notched in figures 1-7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for notches on the glass sheets of Ando, as demonstrated by Stroud, to secure the sheets together.

7. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (English Translation of JP 2000-211630) in view of Kato et al. (English translation of JP Abstract 60-210550), as applied to claims 1 and 8, in view of Cypher et al. (3,223,504). Kato et al fail to disclose the length of time the glass sheets are clamped. Cypher et al. teach clamping glass sheets for 2 seconds before retracting the clamps. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the clamping time of Cypher et al. since 2 seconds is a sufficient amount of time for impressing the desired shape into the softened glass, as taught by Cypher et al.

8. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirotsu et al. (5,071,461), as applied to claims 6 and 11 above, in view of Cathers (4,228,993) and Andrewlavage, Jr. (6,616,025). Hirotsu et al. fail to disclose a base supporting a rack and sliding mechanism for handling the glass sheets. Cathers teaches of a base (32) that is rockable around a substantially horizontal axis of rotation,

supporting a rack (30) that capable of orienting the glass sheets in any desired direction (i.e. vertical) (fig. 1). Andrewlavage, Jr. also teaches a base (29), which supports the rack (17) so that glass sheets are within a vertical plane and are rockable around a substantially horizontal axis of rotation (figure 12). Furthermore, Andrewlavage, Jr. teaches of a sliding mechanism (37a, 37b), which supports the rack for movement in the longitudinal direction of the glass sheet with respect to the base (fig. 12, col. 5 lines 18-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the base, rack, and sliding mechanisms of Cathers and Andrewlavage, Jr. in the apparatus of Hirotsu et al. for efficient and automatic handling of the glass sheets.

Response to Arguments

9. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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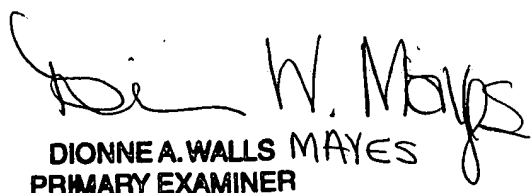
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Q Dehghan


DIONNE A. WALLS MAYES
PRIMARY EXAMINER